OMNIDIRECTIONAL EDDY CURRENT PROBES, ARRAY PROBES, AND INSPECTION SYSTEMS

ABSTRACT OF THE DISCLOSURE

[0031] An omnidirectional eddy current probe includes a number of sense coils arranged in a stack having a principal axis. At least two of the sense coils are rotationally skewed about the principal axis relative to one another. The sense coils are operatively connected to each other and a drive coil is also positioned in the stack. An impulse through the drive coil induces a magnetic influx through a conducting material specimen having a surface, thereby generating eddy currents on the surface. Secondary magnetic field generated from the eddy currents produces corresponding signals in the sense coils, and the signals are then analyzed for the possibility of surface flaw in the conducting material.